

ABSTRACT

A method and apparatus for the anaerobic methane fermentation treatment of a wastewater containing a sulfur compound. An oxidizing agent is added to an organic wastewater to oxidize the sulfur compound contained therein to molecular sulfur before the anaerobic treatment step. The wastewater is then introduced into the anaerobic treatment step for the methane fermentation treatment thereof. The amount of the oxidizing agent to be added to the wastewater is controlled using as an indicator the concentration of the residual oxidizing agent in the water flowing into the anaerobic treatment step and/or the concentration of hydrogen sulfide in a biogas generated. The oxidizing agent may be ozone, hydrogen peroxide, sodium hypochlorite or a bromine based oxidizing agent. When the concentration of hydrogen sulfide in a biogas generated in the anaerobic treatment step is used as said indicator, the oxidizing agent may be suitably added such that the concentration of hydrogen sulfide is 3 % or less.